WHAT IS CLAIMED IS:

1.   1. A production managing system for semiconductor devices, comprising a semiconductor device producing center connected to at least one user terminal through an information communication line, said semiconductor device producing center comprising:

5   a plurality of production devices for performing production processes in respective process steps of semiconductor devices;

         a corresponding number of in-line measuring devices provided net to respective said production devices, for measuring process parameters corresponding to the respective process steps of said production devices and

10   outputting the process parameters measured in units of lot of said semiconductor devices as measured data;

         a database storing, for each wafer group including one or more wafers, at least data of production methods for producing said semiconductor devices, the measured data, specifications of the process steps corresponding to the

15   measured data, estimated yields, data of the input date and hour of a lot, data of the scheduled date on which each process step is performed, data of the actual date of completion of every step and data of the scheduled date of completion of said semiconductor devices, correspondingly to lot number data of said semiconductor devices; and

20   a server including an estimated yield operating unit for calculating the estimated yield, which is a final yield, on the basis of the specifications and the measured data, and a production managing unit for performing a production management of semiconductor devices ordered by a user on the basis of the respective data inputted by the user and the estimated yields, said server

25   performing write and read of the respective data inputted from said user terminal with respect to said database.

2.   A production managing system of semiconductor devices, as claimed in claim 1, wherein said production managing unit manages the production of semiconductor devices by producing process control tables for said respective wafer groups, each of which is composed of the scheduled date and hour data of

5   each of the process steps used for a lot management, on the basis of the production method data, the lot input date and hour data and the data of scheduled date of completion and controlling the process steps of said respective lots on the basis of said process control tables.

3.   A production managing system of semiconductor devices, as claimed in claim 1, wherein said estimated yield operating unit calculates the estimated final yield on the basis of statistical values of process parameters, the specifications and old data after the process steps of said lot is completed and

5   the process parameters are measured on the basis of the specifications.

4.   A production managing system of semiconductor devices, as claimed in claim 1, wherein said user terminal outputs the specifications inputted by the user for respective process steps, the measuring position data indicative of positions on said wafer to be measured and the element data indicative of the

5   kind of measuring elements for performing the measurements to said server together with said lot number and said server writes the inputted specifications, the measuring position data and the element data in a region of said database corresponding to said semiconductor devices corresponding to the lot number data.

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5.   A production managing system of semiconductor devices, as claimed in claim 1, wherein said user terminal outputs the data of lot re-input date and the data of wafer numbers of wafers of said re-input lot inputted by said user

correspondingly to the estimated yield to said server and said server writes the
scheduled process data for every process step of said lot correspondingly to the
production schedule based on the data of re-input date and the data of re-input
wafer numbers.

6.   A production managing system of semiconductor devices, as claimed in
claim 1, wherein, when the estimated yield estimated by the measurement
result in every step is lower than a minimum yield assigned by the user, the
production managing unit notifies the user terminal of the detection result.

7.   A production managing system of semiconductor devices, as claimed in
claim 1, wherein said in-line measuring devices irradiate through-holes formed
in an insulating film for electrical connection between wiring patterns
laminated on both sides of the insulating film with electron beam, measure
electric current values flowing correspondingly to a configuration of said
through-holes and output the measured current values as the measured data.

8.   A production managing system of semiconductor devices as claimed in
claim 1, wherein said estimated yield operation unit calculates estimated yield
in every step on the basis of old data, calculates the number of normal products
of every wafer group on the basis of the estimated yield and calculates
estimated cost of the semiconductor device on the basis of the number of normal
products and the working ratio of the production device.

9.   A production managing method for semiconductor devices, comprising
the steps of:
          inputting at least data of method for producing semiconductor devices,
measured data, specifications of the process step corresponding to the

5 measuring data, data of lot input date and hour, data of scheduled step date, data of actual date of completion in every step and data of scheduled date of completion of the semiconductor devices, all of which are inputted by a user through a user terminal for every wafer group including at least one wafer;

storing the method data, the measuring data, the specifications of the
10 step corresponding to the measured data, the data of lot input date and hour, the data of scheduled process step date, the data of actual date of completion in every step and the data of scheduled date of completion of the semiconductor devices in a database;

performing process processing corresponding to the process steps
15 sequentially performed in each of a plurality of production devices;

measuring process parameters corresponding to process in every of the process steps, calculating an estimated yield, which is a final yield, in every wafer group on the basis of the measured parameter data and the specification in every process step; and

20 storing these data for every wafer group in the database, wherein the production management of the semiconductor devices ordered by the user is performed on the basis of the respective data inputted by the user and the estimated yield.

10. A production managing program for performing a semiconductor production management by using the production managing system as claimed in any of claims 1 to 8, comprising the steps of:

inputting at least the data of method for producing semiconductor
5 devices, the measured data, the specifications of the process step corresponding to the measured data, the data of lot input date and hour, the data of scheduled process step date, the data of actual date of completion in every step and the data of scheduled date of completion of the semiconductor devices, all of which

are inputted by the user through said user terminal for every wafer group

10   including at least one wafer;

storing the method data, the measured data, the specifications of the step corresponding to the measuring data, the data of lot input date and hour, the data of scheduled process step date, the data of actual date of completion in every step and the data of scheduled date of completion of the semiconductor

15   devices in a database;

performing process processing corresponding to the process step sequentially performed in each of the plurality of said production devices;

measuring process parameters corresponding to the processes in every of the process steps;

20   calculating an estimated yield, which is a final yield, in every wafer group on the basis of the measured parameter data and the specification in every step; and

storing these data for every wafer group in said database, wherein the production management of the semiconductor devices ordered by the user is

25   performed by a computer on the basis of the respective data inputted by the user and the estimated yield.